

**Testimony from the Carnegie Institution of Washington
Hearing Concerning the Mount Wilson Observatory
107th Congress**

H.R. _____

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Washington, DC**

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Good morning.

My name is Wesley T. Huntress, Jr. and I am Director of the Geophysical Laboratory, one of the five scientific research departments of the Carnegie Institution of Washington. I am here for Maxine Singer, President of the Carnegie Institution, who was unable to attend. I would like to give the Committee a sense of the history of Institution's involvement with Mt. Wilson and the Forest Service. The Carnegie Institution is a Congressionally chartered institution founded and endowed by Andrew Carnegie 100 years ago this year. Its mission is to conduct fundamental scientific research to discover new knowledge, in the words of the founder, "for the benefit of man". Andrew Carnegie stated that this mission was to be achieved through the support of 'exceptional' individuals.

One of the first of these exceptional individuals was George Ellery Hale. In 1904 he received approval from the Carnegie Institution to establish the Mount Wilson Observatory and the Observatory's offices in nearby Pasadena, California. There, over the next 20 years, he built telescopes for study of the sun and two large optical telescopes, one with a 60-inch mirror, and one with a 100-inch mirror. They were in their time the largest telescopes in the world and would remain so until 1948 when the Carnegie Institution and the California Institute of Technology inaugurated the 200-inch telescope at Palomar. For the first half of the 20th century, the Mount Wilson Observatory set the standard for astronomy and astrophysics and made the United States the world leader in these sciences. The greatest astronomers of that period were Carnegie staff scientists including perhaps the most famous of them all, Edwin Hubble.

In 1919 Edwin Hubble joined the staff of the Mount Wilson Observatory. Over the next 20 years Hubble transformed our understanding of the universe. He made many major discoveries with the 100-inch telescope, but of greatest significance he demonstrated that the universe is made up of many galaxies in addition to our own Milky Way and that all the distant galaxies are moving away from us; in other words, the universe is expanding. After Hubble's death in 1953, staff member Allan Sandage continued the thrust of Hubble's work on the expansion of the universe and to this day works on the question of the rate of the expansion and thus the age of the universe.

In 1969, driven by an interest in studying the objects seen from southern skies, the trustees of the Institution obtained property in northern Chile and constructed the Las Campanas Observatory. During the 1980's, light pollution over the Los Angeles area became an increasing threat to the use of the Mount Wilson telescopes. By the end of that decade, the Institution decided to put its resources for astronomy at Las Campanas and to close Mount Wilson. Nevertheless, there was much useful work that could still be done at Mount Wilson. The Institution was therefore pleased when the independent Mount Wilson Institute was

formed and proposed that it operate the mountain and its facilities. A formal agreement was established in 1991 between the two institutions. The agreement involves no flow of funds in either direction but does require certain periodic reports from the Mount Wilson Institute to the Carnegie Institution, which remains the owner of the Observatory.

The land on which the Observatory stands is currently leased to the Carnegie Institution by the U.S. Forest Service. Anticipating the end of this 99-year lease in 2003, and in view of a request by the Mount Wilson Institute and the productive scientific activities carried out on the mountain under its auspices, the Carnegie Institution applied to the Forest Service for a 99-year extension of this lease. The extension was approved by the Forest Service in March of this year following the payment of one dollar. We only recently learned of this proposed legislation to transfer title of the land on which the Mt. Wilson Observatory stands from the Forest Service to the Mt. Wilson Institute, and we have not had sufficient time to understand the implications with regard to our ownership and responsibility for the buildings and equipment on Mt. Wilson or on our legal relationship with the Mt. Wilson Institute. We have many questions that remain to be answered in this regard, so that at the present time we cannot say whether we can support or oppose.

Thank you for your attention. I will be pleased to respond to your questions.

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